

Work Order ID 142832

Monday, March 14, 2016 11:23:47 AM

142832

Page 1

Item ID: D3793-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Wearplate Fwd
 Start Date: 4/12/2016 Start Qty: 6.00 ***6* 20 SH** Cust Item ID:
 Required Date: 4/21/2016 Req'd Qty: 6.00 ***6* 20 SH** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: MAR 16 2016 Tooling: _____ Date: _____
 QC: _____ Date: MAR 16 2016 SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3793	Rev A								

100 FLOW WATER JET 0.00
100
 Waterjet Memo 0.01
 FLOW CNC Waterjet 1-Cut as per Dwg D3793 Dwg Rev: A Prog Rev: A 2-
 Deburr if necessary

110 QC2- Inspect parts off machine FAI/FAIB 0.00
110
 QC Memo 0.00
 Quality Control

120 QC8- Inspect parts - second check 0.00
120
 QC Memo 0.00
 Quality Control

DAS
38
9-89

APR 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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Item ID: D3793-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Wearplate Fwd
Start Date: 4/12/2016 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 4/21/2016 Req'd Qty: 6.00 ***6*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	NC BRAKE	0.00							
130					DAS	<u>20</u>			
Brake NC	Memo	0.00			30				
Brake NC	1-Deburr if necessary2-Form on Brake as per Dwg D3793 using Jigs 3-Form Joggle on brake using Jig as per Dwg D3793				9-89				APR 21 2016
140	QC5- Inspect part completeness to step on W/O	0.00							
140						<u>(20)</u>			
QC	Memo	0.00							DAS 38 9-89
Quality Control									APR 21 2016
150	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
150	<u>M 130746</u>					<u>20</u>	<u>0</u>	<u>16-04-25</u>	<u>2308</u>
Powdercoat	Memo	0.00							
Powder Coating	START TIME: <u>1:30</u> OVEN TEMPERATURE: <u>320°</u> FINISH TIME: <u>2:00</u>								

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

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142832

Page 3

Item ID: D3793-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Wearplate Fwd

Start Date: 4/12/2016 Start Qty: 6.00

6

Cust Item ID:

Required Date: 4/21/2016 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00							
160									
QC	Memo	0.00							
Quality Control									
170	Identify as per dwg & Stock Location: <u>FP-002</u>	0.00							
170									
Packaging	Memo	0.00							
Packaging	LOCATION ; FP002								
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.01							
Quality Control									

DAS
38

APR 26 2016

x20 of 21 16/04/2016

MUS APR 26 2016

MUS APR 26 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Monday, March 14, 2016 11:23:47 AM

Page 1

Work Order ID: 142832

142832

Parent Item: D3793-1

D3793-1

Parent Item Name: Wearplate Fwd

Start Date: 4/12/2016

Required Date: 4/21/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A 08-05-13 new issue DD verified by:EC
IPP Rev:B 08-05-23 revA as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S20GA		Purchased		No		100	sf	126.9210	0.5902	3.727579			

M304S20GA

304/316 .040 Sheet

m 16/04/12

Location

Loc Qty

Loc Code

MAT020

95.8

m134067

31.8

m134399

64

MAT20

31.121

m133901

31.121

15.5

DQA: _____ Date: _____



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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : ☐			

DART AEROSPACE LTD		Work Order:	142832
Description: Wearshoe		Part Number:	D3793-1
Inspection Dwg: D3793 Rev: A		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

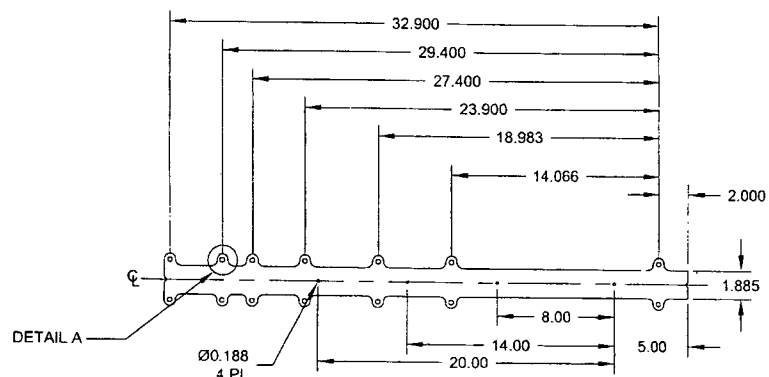
☒ **First Article**

 ☐ **Prototype**

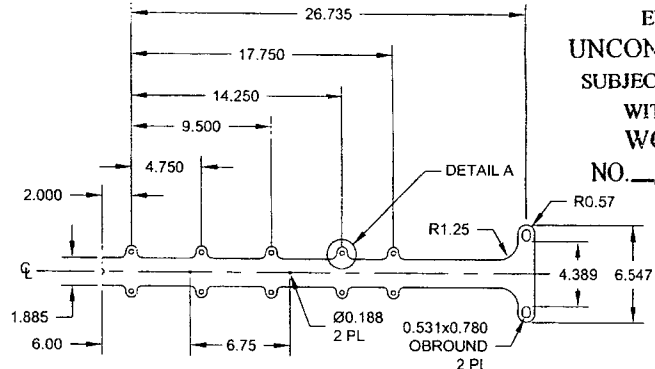
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.188	+0.005/-0.001	Ø.191	/		V=Ø.188	
0.300 x 0.300	+/-0.010	.304 x .304	/		Tap	
1.885	+/-0.010	1.888	/			
2.000	+/-0.010	2.004	/			
5.00	+/-0.030	5.00	/			
8.00	+/-0.030	8.00	/			
14.00	+/-0.030	14.00	/			
20.00	+/-0.030	20.00	/			
14.066	+/-0.010	14.066	/			
18.983	+/-0.010	18.983	/			
23.900	+/-0.010	23.900	/			
27.400	+/-0.010	27.400	/			
29.400	+/-0.010	29.400	/			
32.900	+/-0.010	32.900	/			
0.040	+/-0.010	.037	/			

Measured by:	DL	Audited by:	DAS 38 9-89	Prototype Approval:	N/A
Date:	16/04/12	Date:	APR 12 2016	Date:	N/A
Rev	Date	Change	Revised by	Approved	
A	08.05.30	New Issue	KJ/DD		

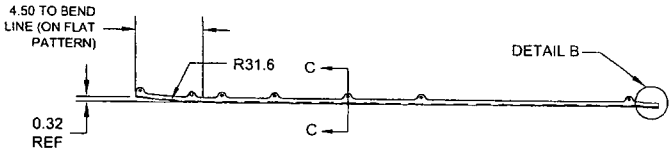
8 7 6 5 4 3 2 1



D3793-1F FLAT PATTERN



D3793-3F FLAT PATTERN



D3793-1 BEND DETAIL
(MAKE FROM D3793-1F)



D3793-3 BEND DETAIL
(MAKE FROM D3793-3F)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 142832MLW
16-03-16

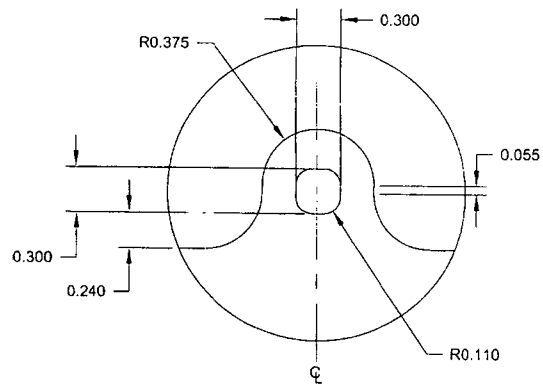
RELEASED
08.05.14

- NOTES:**
- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 20 GAUGE (0.038 THICK)
(REF DART SPEC M304S20GA)
 - 2) FINISH: POWDER COAT GREY SANTEX (4.3.5.6) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "DXXXX-X" ON INSIDE SURFACE USING FINE POINT PERMANENT INK MARKER OR LABEL AFTER FINISH
 - 7) WEIGHT: D3793-1 - 0.72 LBS, D3793-3 - 0.66 LBS

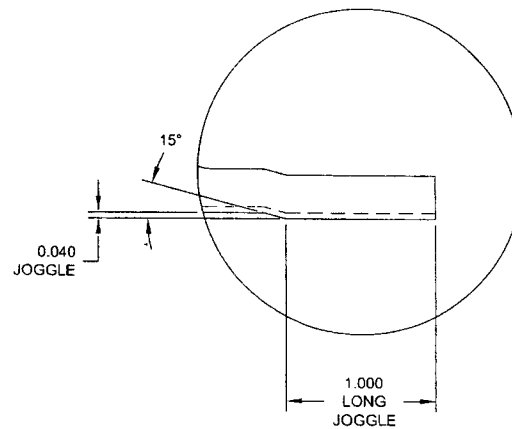
A NEW ISSUE		PH	08.05.14
REV.	DESCRIPTION		BY DATE
DESIGN	PH	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	PH		
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	DS	D3793	SHEET 1 OF 2
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	WEARSHOE	NTS
DATE	COPYRIGHT © 2008 BY DART AEROSPACE USA, INC		
08.05.14			
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8 7 6 5 4 3 2 1

D



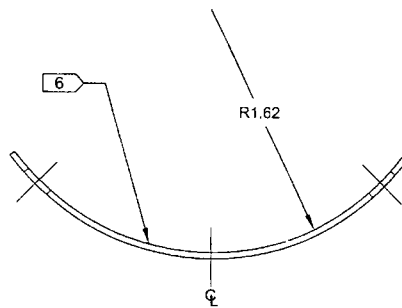
DETAIL A
SCALE 10X



DETAIL B
SCALE 10X

C

B



SECTION C-C
SCALE 10X

RELEASED
08-05-23/162

A

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D3793	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		WEARSHOE	NTS
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8 7 6 5 4 3 2 1